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Biotechnology Notes

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Biotechnology Notes, a compilation of agency activities, news events, and upcoming meetings, is prepared for members of the U.S. Department of Agriculture's (USDA) Committee on Biotechnology in Agriculture (CBA) by USDA's Office of Agricultural Biotechnology (OAB).

INSIDE USDA

PUBLIC INVITED TO ATTEND ABRAC MEETING, DEC. 3-4

USDA's Agricultural Biotechnology Research Advisory Committee (ABRAC) plans to discuss revisions to the proposed Guidelines at the upcoming meeting. The revisions are being made in response to public comments submitted after the proposed Guidelines were published in the *Federal Register* earlier this year.

Other agenda items will also include a briefing by Alvin Young, ABRAC Executive Secretary, on the biotechnology research crosscut effort. There will be several agency updates as well as an overview of a catfish proposal recently submitted to the Cooperative State Research Service (CSRS) by the Alabama Agricultural Experiment Station in Auburn, Alabama.

The meeting will be in the Cabinet Room of the Governor's House Holiday Inn, Rhode Island Ave. and 17th St., N.W., Washington, DC 20036. It begins at 9 am both days and concludes at 5 pm on Dec. 3 and at about 3 pm on Dec. 4.

The public is also invited to attend a meeting on December 2 of the ABRAC working group on classification/confinement. It will be from 9 am to 5 pm and takes place at the same hotel. For more details about either event, please call Daniel Jones, Deputy Director of the Office of Agricultural Biotechnology (OAB), at 703-235-4419. The OAB FAX number is 703-235-4429.

USDA PARTICIPATES IN HANNOVER CONFERENCE

"A strong, successful biotechnology effort requires two basic support activities: regulation and communication," said Harry C. Mussman, USDA Acting Assistant Secretary for Science and Education, in a keynote address October 22 at the 7th International Congress and Exhibition for Biotechnology in Hannover, Germany.

"In the complicated and demanding world in which we live," added Mussman, ". . . carefully thought out regulation and effective communication will play equally important roles in determining biotechnology's future."

In addition to scientific seminars and workshops, more than 420 exhibitors from 21 countries showcased their goods and services. About 8,000 people visited the exhibition, which included a USDA booth housing dozens of departmental publications. An information specialist was on hand to explain the various biotech programs and to provide leads for further information.

The USDA exhibit was coordinated and supervised by the OAB, with overall guidance provided by the U.S. Department of Commerce. Funding and materials were provided by five USDA agencies: the CSRS, the National Agricultural Library (NAL), the Animal and Plant Health Inspection Service (APHIS), the Extension Service, and the Agricultural Research Service (ARS). NAL's Susan Fugate and Kate Baker managed the speedy shipment and safe delivery of all 14,000 pieces of literature that were distributed at the exhibition.

NEPA RULE GOES FINAL

The CSRS has joined several other USDA agencies, including the ARS, the Forest Service, and APHIS, in setting out procedures to ensure compliance with the National Environmental Policy Act (NEPA). The final rule was published in the September 27, 1991 *Federal Register*. To receive a copy, please call the CSRS office at 202-720-7441.

TRANSGENIC CATFISH MAY BE NEXT IN LINE

Transgenic channel catfish at the Alabama Agricultural Experiment Station in Auburn, Alabama are busy pumping up their fins in anticipation of USDA's approval of Auburn University's catfish study. The experiment is very similar to the one begun earlier this year using transgenic carp as a model. Both are partly funded by the CSRS, and each uses recombinant DNA technology to insert a growth hormone gene from rainbow trout. The transgenic catfish will be artificially spawned indoors and their offspring placed outdoors in Auburn's new research ponds.

Researchers hope the genetically modified fish will have an increased growth rate. The experiment is also intended to shed light on basic knowledge about rDNA technology and its potential in developing improved fish genetic lines for aquaculture production.

The OAB has assembled a team of fish experts to review Auburn's environmental analysis of the proposal. The team's findings will

be reviewed at a public meeting of ABRAC that is planned for February 1992. Before CSRS Administrator John Patrick Jordan makes a decision, all requirements under NEPA will be met.

BIOTECH COUNCIL HEARS ABOUT NEW SURVEY

Social science researchers Thomas Hoban of North Carolina State University and Pat Kendall from Colorado State University briefed members of the Biotechnology Council November 13 on a survey they will conduct on public attitudes toward biotechnology and food safety. Interviewers will contact more than 1000 individuals and ask both general questions about food and demographics and more specific ones pertaining to biotechnology applications of food products. Council members were invited to comment on the proposed survey form. The results of the survey will be used to develop approaches for educating the public about biotechnology as well as to assess consumer concerns about biotechnology-derived food products.

GOSLAR CONFERENCE ISSUES FIRST ANNOUNCEMENT

"The Second International Symposium on the Biosafety Results of Field Tests of Genetically Modified Plants and Microorganisms" takes place May 11-14, 1992 in Goslar, Germany. Agenda topics include the results of field tests with traditionally modified plants and microorganisms, new biosafety results of field tests with plants and microorganisms, bioremediation studies, the biosafety aspects of commercialization, and new information on food safety. To receive the first announcement and a registration form, which must be completed by January 15, 1992, call either Barry or Mattie in the OAB at 703-235-4419. The FAX number is 703-235-4429.

NEWS AROUND THE COUNTRY (AND THE WORLD)

RESEARCHERS WORKING ON HIGH YIELDING RICE PLANT

Scientists at the International Rice Research Institute in the Philippines are developing an ultra-high yielding rice plant they say will produce 20-30 percent more than the semidwarf rices now grown on most irrigated land. It should be ready in 5 to 8 years, according to Institute Director Klaus Lampe. He says the new variety will produce fewer stalks and almost all will bear panicles. The new rice can be seeded directly or transplanted. The plant stands about 40 inches high and is ready for harvest in 100-130 days after seeding. In addition, it will have a vigorous root system, its seeds will germinate better, and it will have better pest resistance. For more details, please contact Henrich

von Loesch at the Consultative Group on International Agricultural Research at 202-473-8913. The FAX number is 202-334-8750.

TAKING STOCK OF EDUCATION PROJECTS

With the profusion of projects now underway related to biotechnology education, the timing couldn't be better for a national inventory. That is the goal of a project now underway by the Education Committee of the Association of Biotechnology Companies (ABC). Organizations that sponsor educational activities are asked to describe them to the ABC committee for publication in the inventory which will become available in May 1992 from ABC. The inventory will include sections on partnerships and interactions, teaching and training activities, and public information activities. Those wishing to contribute should contact W. Steven Burke, Committee Chairman, at 919-541-9366. The FAX number is 919-549-9710.

POINT COUNTER-POINT

The University of Wisconsin's new VHS videotape on biotechnology includes segments with two speakers having opposite points of view. Called "Helping Communities Explore Biotechnology Issues," the tape includes 15-minute segments on the *Bacillus thuringiensis* (Bt) gene, chymosin, and bovine somatotropin (BST). It can be rented for about \$12.50 for five days, plus about a \$3 shipping charge. For more details call 1-800-362-6888 and ask about tape number 13888.

CONGRESSIONAL CAUCUS HOSTS SEMINAR

International competitiveness, efficiencies of production, and the importance of technology transfer were three of the themes stressed in remarks given November 13 at the agriculture session of a seminar sponsored by the newly formed Congressional Biotechnology Caucus. Stephen Benoit, vice president of Calgene Inc., discussed bringing biotech products to market and said the regulatory system was working well. Jerry Caulder, Chairman and CEO of Mycogen, emphasized the impact that biotechnology will have on world food production with the development of hardier and more nutritious crops. Terry Medley, APHIS Director of the Biotechnology, Biologics, and Environmental Protection Division, emphasized the importance of technology transfer as it relates to America's ability to remain competitive in a global marketplace.

SCIENCE TEACHERS + STUDENTS = BIOTECH EDUCATION

More than 100 teachers, scientists, and science education specialists put their heads together last October at the University of Wisconsin, Madison to discuss biotechnology education in America. They agreed that biotechnology must be infused into the high school curriculum, preferably in the introductory biology course which is taken by about 95% of high school students. There was also general agreement that such a course should emphasize the basics of science, the technological applications of biotechnology, and the social and ethical issues. The meeting was funded in part by the National Science Foundation. Proceedings will be available in several months.

MAKING A BETTER RASPBERRY

Researchers at Agritope Inc., a subsidiary of Epitope Inc., of Beaverton, OR, are using genetic engineering and tissue culture techniques to extend the post-harvest shelf life of fresh raspberries. In research funded by the Oregon Department of Agriculture's Center for Applied Agricultural Research, the project will use biotechnology to control the plant's output of ethylene, the hormone which induces ripening and eventually leads to spoilage.

BIOTECH BUNNIES?

The July/August 1991 issue of *AgBiotechnology* reported that TSI Corporation of Worcester, MA received a grant from the National Institutes of Health to fund the development of transgenic rabbits for large-scale production of human growth hormone. The research is aimed at producing rabbits that express the protein in their milk at levels suitable for commercial production of biopharmaceuticals.

IN CASE YOU WEREN'T THERE

■ Forty scientists met with members of German governmental agencies in Berlin, Germany, October 14-15, to discuss the environmental implications of releasing genetically modified organisms into the environment. The meeting was sponsored by the German Federal Environmental Board Berlin (Umweltbundesamt Berlin), which is involved in the approval procedure for such releases. The organizers, Professor Dr. Herbert Sukopp and Dr. Detlef Bartsch of the Ecological Institute of the Technical University Berlin, said the discussion was productive and amiable. For more details, please contact the organizers by telefax at 49-30-31471324.

NEW PUBLICATIONS

■ *Excellence Under Adversity: The Life Sciences and Biotechnology in Latin America* by Christian Orrego. Published by the Interciencia Association. The report includes a regional overview of biotechnology programs in Latin America. Copies available at no charge by writing to Interciencia Association, Executive Secretariat, c/o Western Hemisphere Cooperation Program, AAAS, 1333 H Street, N.W., Washington, DC 20005.

■ *Boletin de Biotechnologia*. Published twice a year by the Permanent Committee for Biotechnology of the Interciencia Association. Includes articles in Spanish and English on recent conferences and developments in biotechnology in Latin America. For a copy at no charge, please write to CONICIT, Apdo. 10318, San Jose, Costa Rica.

■ "FSIS Food Safety Review" is a new quarterly publication from USDA's Food Safety and Inspection Service. To subscribe please send your name and address to FSIS, ILA, Information Office, USDA, Room 1160 South, Washington, DC 20250; or call 202-720-9113.

■ *Emerging Biotechnologies in Agriculture: Issues and Policies*. November 1991. Prepared by the National Association of State Universities and Land-Grant Colleges. To obtain a copy, please call 904-392-1784.

■ *Expression Systems and Processes for rDNA Products*. Published by the American Chemical Society, Washington, DC. November 1991. \$34.95. To place an order call 1-800-ACS-5558 and request ACS Symposium Series No. 477.

■ Minutes of the Agricultural Biotechnology Research Advisory Committee, held in Washington, DC, May 22-23, 1991, as well as Minutes of the Classification/Confinement Working Group which met in Washington, DC May 21, 1991, are now off press. To receive a free copy, please call the OAB at 703-235-4419 or FAX your order to 703-235-4429.

■ The Bay Area Bioscience Center, a consortium of local agencies, universities, and businesses in the San Francisco, CA area, recently issued a well-written, glossy magazine that traces the history and achievements of biotechnology in northern California. To learn more about the Center or to order the magazine, which costs \$10, please call 510-874-1464. The FAX number is 510-874-1466.

■ *From the Lab to the Environment: Microbial Releases* is a new journal due out this spring. The publishers, Springer-Verlag in Heidelberg, Germany, have issued a call for papers. For more

details contact the U.S. co-editor, Professor Joe Shaw at Auburn University. His FAX number is 205-844-1645.

■ *Biotechnology: Public Perception* is the latest in the NAL's Quick Bibliographic series. It covers literature published from January 1979-August 1991. To request a copy, send the title, series number (QB-91-151) and a self-addressed label to: USDA/NAL, Public Services Division, Room 111, Beltsville, MD 20705.

■ The June 1991 issue of "Biotechnology and Development Monitor," a Dutch publication, features four articles on the role of biotechnology in aquaculture, including the use of fishfarms, algae, seaweeds, and an aquatic center in the Philippines. To receive a copy, please write to Biotechnology and Development Monitor, University of Amsterdam, Department of International Relations and Public International Law, Oudezijds Achterburgwal 237, 1012 DL Amsterdam, The Netherlands. The phone number is 020-525-2163 and the FAX number is 020-525-2086.

■ *Public Regulation of Agricultural Biotechnology Field Tests: Economic Implications of Alternative Approaches*. Prepared by USDA's Economic Research Service. August 1991. To order call 1-800-999-6779 and ask for technical bulletin TB-1793.

■ In October 1990 Iowa State University sponsored a workshop on bioethics. If you would like a copy of the executive summary, please write to Walter Fehr, Office of Biotechnology, 1010 Agronomy, I.S.U., Ames, IA 50011.

■ "Guidelines for the Release into the Environment of Genetically Modified Organisms." Prepared by the Inter-American Institute for Cooperation on Agriculture. To receive a copy write to IICA, P.O. Box 55-2200, Coronado, Costa Rica. The phone number is 29-02-22.

■ "Biotechnology in a Global Economy." Prepared by Congress's Office of Technology Assessment. October 1991. The publication consists of both the primary report and a summary. For information about ordering copies, write to the Superintendent of Documents, Government Printing Office, Washington, DC 20402-9325. Inquiries may also be FAXed to 202-275-0019.

UPCOMING MEETINGS

Dec. 2: Meeting of USDA's ABRAC Working Group on Classification/Confinement. Governor's House Holiday Inn, Cabinet Room, Rhode Island Ave. and 17th St., N.W., Washington, DC 20036. The meeting begins at 9 am and concludes at 5 pm. Please call the OAB at 703-235-4419 for more details.

(Continued on page 8)

Dec. 3-4: Meeting of USDA's ABRAC (the full Committee). Governor's House Holiday Inn, Cabinet Room. See Dec. 2 meeting address. The meeting begins at 9 am both days and concludes at 5 pm on Dec. 3 and at about 3 pm on Dec. 4. For more details, please call the OAB at 703-235-4419.

Dec. 9-12: Institute of Gas Technology's 4th International Symposium on Gas, Oil and Environmental Biotechnology. Colorado Springs, CO. Call Calvin Akin at 312-567-3724.

Dec. 16-21: Recombinant DNA Techniques II Workshop. Germantown, MD. Call 1-800-828-6686, ext. 713.

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Jan. 12-16: BioEast '92. Washington, DC. Call 212-996-5679.

Feb. 6-11: The AAAS Annual Meeting. Chicago, Ill. For more information write to AAAS '92, P.O. Box 630285, Baltimore, MD 21263.

Mar. 11-12: Agro-Industrial and Forestry Research and Technology Days. Brussels, Belgium. Sponsored by the Commission of the European Communities, Directorate General XII. Call 32-2-647-8780. The FAX number is 32-2-640-6697.

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BIOTECHNOLOGY NOTES is prepared by Marti Asner, public affairs specialist in USDA's Office of Agricultural Biotechnology. Suggestions for items to include in future issues are always appreciated and may be sent to USDA/OAB, Room 1001, Rosslyn Plaza East, 14th and Independence Ave., S.W., Washington, DC 20250-2200; or call 703-235-4419. The OAB FAX number is 703-235-4429.